

Claims

1. Device for cleaning of an air stream (40) from electrically charged particles (aerosols), said air stream 5 passing through the device, said device comprising at least two electrode elements (20, 21) that are arranged in planes parallel to each other and at a gap distance (d) between adjacent electrode elements (20, 21), that the electrode elements (20, 21) are connected to a respective terminal of a 10 high voltage source, and that spacers (11) are provided between adjacent electrode elements (20, 21), characterised in that the spacers (11) constitute electrically insulating material, through which material the air stream may pass, and that the spacers (11) are arranged in 15 such a way that all air transport through the device must pass through the spacers (11).
2. Device according to claim 1, characterised in that the spacers (11) that belong to one gap are arranged in 20 V-shape.
3. Device according to claim 1 or 2, characterised in that the spacers (11) along their entire length abut to adjacent electrode elements (20, 25 21).
4. Device according to any of the previous claims, characterised in that the spacers (11) generally extend along the direction of the air stream through the 30 device.
5. Device according to any of the previous claims, characterised in that the spacers (11) constitute glass fibre or synthetic fibre.
- 35 6. Device according to any of the claims 1-4, characterised in that the spacers (11) constitute foamed plastic.

7. Device according to any of the previous claims, characterised in that the gap (d) is in the interval 3-30 mm.

5 8. Device according to any of the previous claims, characterised in that the passage area (12) of two cooperating spacers (11) should be at least double the available inlet area (41) of the air stream when it passes between two adjacent electrode elements (20, 21).

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9. Device according to any of claims 1-5, characterised in that the spacers (11) are manufactured from materials having high heat resistance, e.g. ceramic materials.

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10. Device according to claim 9, characterised in that also the electrode elements (20, 21) constitute heat resistant material, e.g. aluminium.

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11. Device according to any of the claims 1-5, characterised in that the electrode elements (20, 21) consist of a high resistive material or have a coating of high resistive material.

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12. Device according to claim 11, characterised in that the electrode elements (20, 21) constitute cellulose material.

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13. Device according to any of the previous claims, characterised in that the spacers (11) and the electrode elements (20, 21) are surrounded by a cover on the sides having an extension in the direction of the air stream.